

## ABSTRACT

The present invention relates to a propylene random copolymer which satisfies the following requirements [1] to [4], and to various useful molded products obtained by molding the propylene random copolymer:

[1] the concentration ( $P_a$ , % by mole) of a skeletal constituent derived from propylene (a), and the concentration ( $P_x$ , % by mole) of a skeletal constituent derived from at least one olefin selected from ethylene (b) and  $\alpha$ -olefins having 4 to 20 carbon atoms (c), each of which is contained in the propylene random copolymer, satisfy the following relational expressions (Eq-1) to (Eq-3):

$$85 \leq P_a < 100 \quad (\text{Eq-1})$$

$$0 < P_x \leq 15 \quad (\text{Eq-2})$$

$$P_a + P_x = 100 \quad (\text{Eq-3});$$

[2] the concentration ( $P_a$ , % by mole) of the skeletal constituent derived from propylene (a) contained in the propylene random copolymer, and the melting point ( $T_m$ ) measured with a differential scanning calorimeter satisfy the following relational expression (Eq-4):

$$135 - 4 \times (100 - P_a) < T_m < 165 - 4 \times (100 - P_a) \quad (\text{Eq-4});$$

[3] the total amount of 2,1-bonded and 1,3-bonded non-stereoregular fractions is less than or equal to 0.2% by mole; and

[4] the amount of the n-decane ( $nC_{10}$ )-soluble fraction

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is less than or equal to 2.0% by weight.